

2007-02-27 2520-0132PUS1_ST25
SEQUENCE LISTING

<110> MIYAGAWA , Shuji
MATSUNAMI , Katsuyoshi

<120> HLA-E CHIMERIC MOLECULE

<130> 2520-0132PUS1

<140> US 10/578,139

<141> 2006-05-03

<160> 92

<170> PatentIn version 3.4

<210> 1

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 1

Met Val Asp Gly Thr Leu Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 2

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain of HLA-E

<400> 2

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
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65

70

75

80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
 85 90

<210> 3

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain of HLA-E

<400> 3

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
 1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
 20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
 35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu
 50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
 65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
 85 90

<210> 4

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain of HLA-E

<400> 4

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 5
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-E

<400> 5

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 6
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 6
atggtagatg gaaccctcct ttactcctc tcggaggccc tggcccttac ccagacctgg 60
gcg 63

<210> 7
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
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a1 domain of HLA-E

<400> 7
 ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60
 cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
 gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180
 gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtga tctgcggacg 240
 ctgcgcggct actacaatca gagcgaggcc 270

<210> 8
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain of HLA-E

<400> 8
 ggggtctaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
 cgcggggatg aacagttcgc ctacgacggc aaggattatc tcacctgaa tgaggacctg 120
 cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtc aaatgatgcc 180
 tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
 tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 9
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain of HLA-E

<400> 9
 gagccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
 ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttcag 180
 aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 10
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence

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Transmembrane domain of HLA-E

<400> 10
aagccggcctt cccagcccac catcccatc gtgggcatca ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgccaggg gtctgagtct 180
cacagcttgt aa 192

<210> 11
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-G1

<400> 11
Met Val Val Met Ala Pro Arg Thr Leu Phe Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 12
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain of HLA-G1

<400> 12
Gly Ser His Ser Met Arg Tyr Phe Ser Ala Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Val Glu Gln Glu Gly Pro Glu Tyr Trp Glu Glu Glu Thr
50 55 60

Arg Asn Thr Lys Ala His Ala Gln Thr Asp Arg Met Asn Leu Gln Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala

<210> 13
 <211> 92
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain of HLA-G1

<400> 13

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
 1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
 20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
 35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
 50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
 65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
 85 90

<210> 14
 <211> 92
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain of HLA-G1

<400> 14

Asp Pro Pro Lys Thr His Val Thr His His Pro Val Phe Asp Tyr Glu
 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Ile
 20 25 30

Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Val Glu Leu
 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Leu Met Leu Arg Trp
85 90

<210> 15
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-G1

<400> 15

Lys Gln Ser Ser Leu Pro Thr Ile Pro Ile Met Gly Ile Val Ala Gly
1 5 10 15

Leu Val Val Leu Ala Ala Val Val Thr Gly Ala Ala Val Ala Ala Val
20 25 30

Leu Trp Arg Lys Lys Ser Ser Asp
35 40

<210> 16
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-G1

<400> 16
atggtggtca tggcgccccg aaccctcttc ctgctgctct cggggggccct gaccctgacc 60
gagacctggg cg 72

<210> 17
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-G1

<400> 17
ggctcccact ccatgaggta tttcagcgcc gccgtgtccc ggcccggccg cggggagccc 60
cgcttcatcg ccatgggcta cgtggacgac acgcagttcg tgcggttcga cagcgactcg 120
gcgtgtccga ggatggagcc gcgggcccgc tgggtggagc aggaggggccc agagtattgg 180

gaagaggaga cacggaacac caaggcccac gcacagactg acagaatgaa cctgcagacc 240
 ctgcgcggt actacaacca gagcgaggcc 270

<210> 18
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain of HLA-G1

<400> 18
 agttctcaca ccctccagt gatgattggc tgcgacctg ggtccgacgg tcgcctcctc 60
 cgcggggtatg aacagtatgc ctacgatggc aaggattacc tcgccctgaa cgaggacctg 120
 cgctcctgga ccgcagcggg cactgcggt cagatctcca agcgcaagtg tgaggcgggc 180
 aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagt gctccacaga 240
 tacctggaga acgggaagga gatgctgcag cgcgcg 276

<210> 19
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain of HLA-G1

<400> 19
 gacccccca agacacacgt gaccaccac cctgtctttg actatgaggc caccctgagg 60
 tgctggggccc tgggcttcta ccctgaggag atcatactga cctggcagcg ggatggggag 120
 gaccagaccc aggacgtgga gtcgtggag accaggcctg caggggatgg aaccttccag 180
 aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc tgccggagcc cctcatgctg agatgg 276

<210> 20
 <211> 123
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain of HLA-G1

<400> 20
 aagcagtctt ccctgcccac catccccatc atgggtatcg ttgctggcct ggttgcctt 60
 gcagctgtag tcaactggagc tgcggtcgct gctgtgctgt ggagaaagaa gagctcagat 120
 tga 123

<210> 21
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 21

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
 1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
 20

<210> 22
 <211> 90
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a1 domain

<400> 22

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
 1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
 20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
 35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
 50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
 65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
 85 90

<210> 23
 <211> 92
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
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a2 domain

<400> 23

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
 1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
 20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
 35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
 50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
 65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
 85 90

<210> 24

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 24

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
 65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
 85 90

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<210> 25
 <211> 63
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain
 <400> 25

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
 1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
 20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
 35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
 50 55 60

<210> 26
 <211> 72
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 26
 atggcgggtca tggcgccccg aaccctcgtc ctgctactct cggggggccct gaccctgacc 60
 gagacctggg cg 72

<210> 27
 <211> 270
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 al domain

<400> 27
 ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60
 cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
 gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggagggggtc agagtattgg 180
 gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtga tctgcggacg 240
 ctgcgcggct actacaatca gagcgaggcc 270

<210> 28
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain

<400> 28
 agttctcaca ccctccagtg gatgattggc tgcgacctgg ggtccgacgg tcgcctcctc 60
 cgcggggtatg aacagtatgc ctacgatggc aaggattacc tcgccctgaa cgaggacctg 120
 cgctcctgga ccgcagcgga cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180
 aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga 240
 tacctggaga acgggaagga gatgctgcag cgcgcg 276

<210> 29
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 29
 gagccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctggggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
 ggccataccc aggacacgga gtcctggag accaggcctg caggggatgg aaccttccag 180
 aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc taccgagcc cgtcacctg agatgg 276

<210> 30
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 30
 aagccggctt ccagcccac catccccatc gtgggcatca ttgctggcct gggttcctt 60
 ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
 ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgccaggg gtctgagtct 180
 cacagcttgg aa 192

<210> 31
 <211> 24

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 31

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
 1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
 20

<210> 32
 <211> 90
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a1 domain

<400> 32

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
 1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
 20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
 35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
 50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
 65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
 85 90

<210> 33
 <211> 92
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain

<400> 33

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Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 34
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 34

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 35
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 35

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
 1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
 20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
 35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
 50 55 60

<210> 36
 <211> 72
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 36
 atggcgggtca tggcgccccc aaccctcgctc ctgctactct cggggggccct gaccctgacc 60
 gagacctggg cg 72

<210> 37
 <211> 270
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a1 domain

<400> 37
 ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60
 cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
 gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggagggggtc agagtattgg 180
 gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtga tctgcggacg 240
 ctgcgcggct actacaatca gagcgaggcc 270

<210> 38
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a2 domain

<400> 38
 ggggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
 cgcggggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
 cgctcctgga cgcggttgga cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180
 aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga 240
 tacctggaga acgggaagga gatgctgcag cgcgcg 276

<210> 39
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 39
 gagccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
 ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180
 aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc taccgagcc cgtcaccctg agatgg 276

<210> 40
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 40
 aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
 ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
 ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180
 cacagcttgt aa 192

<210> 41
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 41

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 42

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 42

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 43

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 43

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

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Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 44
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 44

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 45
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 45

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
 1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
 20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
 35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
 50 55 60

<210> 46

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 46

atggcgggtca tggcgccccg aaccctcgtc ctgctactct cgggggccct gaccctgacc 60

gagacctggg cg 72

<210> 47

<211> 270

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 47

ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60

cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120

gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180

gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtga tctgcggacg 240

ctgcgcggct actacaatca gagcgaggcc 270

<210> 48

<211> 276

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 48
 ggggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggccccgacag gcgcttcctc 60
 cgcggggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
 cgctcctgga ccgcggtgga cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180
 tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
 tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 49
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 49
 gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
 ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180
 aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc taccgagcc cgtcaccctg agatgg 276

<210> 50
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 50
 aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
 ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
 ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180
 cacagcttgt aa 192

<210> 51
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 SP of HLA-E

<400> 51

Met Val Asp Gly Thr Leu Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 52
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 52

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 53
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 53

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
 35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
 50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
 65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
 85 90

<210> 54

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 54

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
 65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
 85 90

<210> 55

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 55

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
 Page 22

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<400> 58
gggtctcaca ccctgcagtg gatgcatggc tgcgaagctgg ggcccgaacg gcgccttcctc 60

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cgcggggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg	120
cgctcctgga ccgcggtgga cagggcggt cagatctccg agcaaaagtg taatgatgcc	180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa	240
tacctggaga aggggaagga gacgctgctt cacctg	276

<210> 59
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 59	
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg	60
tgctggggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag	120
ggccataccc aggacacgga gtcgtggag accaggcctg caggggatgg aaccttccag	180
aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag	240
catgaggggc taccgagcc cgtcaccctg agatgg	276

<210> 60
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 60	
aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct gggttctcctt	60
ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt	120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgccaggg gtctgagtct	180
cacagcttgt aa	192

<210> 61
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 61

Met	Ala	Val	Met	Ala	Pro	Arg	Thr	Leu	Val	Leu	Leu	Leu	Ser	Gly	Ala
1				5					10					15	

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 62
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 62

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 63
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 63

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

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Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 64

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 64

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 65

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 65

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
Page 26

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 66
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 66
atggcgggtca tggcgccccg aaccctcgtc ctgctactct cggggggccct gaccctgacc 60
gagacctggg cg 72

<210> 67
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 67
ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtga tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 68
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 68
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
cgcggggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtg taatgatgcc 180

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tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 69
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 69
gagccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180
aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc taccgagcc cgtcaccctg agatgg 276

<210> 70
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 70
aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgccagggt gtctgagtct 180
cacagcttgt aa 192

<210> 71
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 71

Met Val Asp Gly Thr Leu Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

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<210> 72
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 72

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 73
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 73

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
 65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
 85 90

<210> 74

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 74

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
 65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
 85 90

<210> 75

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 75

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
 1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
 20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
 Page 30

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 76
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 76
atggtagatg gaaccctcct ttactcctc tcggaggccc tggcccttac ccagacctgg 60
gcg 63

<210> 77
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 77
ggctcccact ccttgaagta ttccacact gccgtgtccc ggcccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180
gaccgggaga cacggagcgc caggacacc gcacagattt tccgagtga tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 78
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 78
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccagacag gcgcttcctc 60
cgcggggtatg aacagttcgc ctacgacggc aaggattatc tcacctgaa tgaggacctg 120
cgctcctgga ccgcggtgga caggcggtc cagatctccg agcaaaagt taatgatgcc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagt gctccacaaa 240
tacctggaga aggggaagga gacgtgctt cacctg 276

<210> 79
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 79
 gagccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
 ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180
 aagtgggagc ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc taccgagcc cgtcaccctg agatgg 276

<210> 80
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 80
 aagccggcctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
 ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
 ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgccaggg gtctgagtct 180
 cacagcttgt aa 192

<210> 81
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 81

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
 1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
 20

<210> 82
 <211> 90
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 82

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 83

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 83

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
 85 90

<210> 84
 <211> 92
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 84

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
 65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
 85 90

<210> 85
 <211> 63
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 85

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
 1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
 20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
 35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu

50

55

<210> 86
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 86
atggcggtca tggcgccccg aaccctcgtc ctgctactct cgggggccct gaccctgacc 60
gagacctggg cg 72

<210> 87
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 87
ggctcccact ccttgaagta tttccacact gccgtgtccc ggcccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtga tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 88
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 88
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccacag gcgcttcctc 60
cgcggggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga ccgcggtgga cacggcggtc cagatctccg agcaaaagtg taatgatgcc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 89
<211> 276
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 89

```
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg      60
tgctggggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag      120
ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag      180
aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag      240
catgaggggc tacccgagcc cgtcaccctg agatgg                                276
```

<210> 90

<211> 192

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 90

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aagccggctt cccagcccac catcccatc gtgggcatca ttgctggcct ggttctcctt      60
ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt      120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgccaggg gtctgagtct      180
cacagcttgt aa                                                        192
```

<210> 91

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic HLA leader peptide

<400> 91

```
Val Met Ala Pro Arg Thr Leu Val Leu
1                               5
```

<210> 92

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic HLA leader peptide

<400> 92

```
Val Met Ala Pro Arg Thr Leu Phe Leu
1                               5
```

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